## REMARKS

On an initial note, the Applicant also wishes to thank the Examiner for allowing claims 12-17 and noting that claims 7-10 will be allowed if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In order to expedite prosecution of the application, claims 7 and 8 have been amended accordingly, with claims 9 and 10 dependent upon claim 8. The Applicant also wishes to thank the Examiner for pointing out the informality identified in section 1 of the office action. The correction has been made, accordingly. Further, claims 1-3 have been deleted, claims 4-6, 11, and 18-20 have been amended, and claims 21-27 have been added. Support for claim 21 can be found in original claim 12, paragraphs [0025] and [0031] and in Figure 9. Support for claims 22 and 24 can be found in paragraph [0044]. Support for claim 23 can be found in paragraph [0029]. Support for claim 25 can be found in paragraph [0041]. Support for claim 26 can be found in paragraph [0031] and Figure 9. Support for claim 27 can be found in original claim 12 and paragraphs [00034] and [00042]. The Applicant submits that these minor amendments and corrections herein are made without prejudice as to patentability, including the doctrine of equivalents, and no new matter has been added. The Commissioner is authorized to charge any additional fees or credit any overpayments to the deposit account of Bracewell & Patterson, Deposit Account No. 50-0259.

## Claims 4-6, 11, and 18-20 and New Claims 21-26 Are Nonobvious

The Examiner rejected Claims 4-6, 11, and 18-20 under 35 U.S.C. 103(a) as being unpatentable over Key et al., U.S. Patent No. 4,701,143 in view of Nandakumar et al., U.S. Patent No. 5,651,709 and Allen et al., U.S. Patent No. 6,092,483. Applicant respectfully traverses the rejection.

Regarding Key et al., referring to col. 1, lines 35-44, Key et al. discloses a vessel V having a deck D, bottom plates P, and a series of bulkheads G which form a well W extending from deck D to bottom plates P. A vessel mounted mooring system fits through an opening in the deck D and an opening in bottom plates P. Referring to Figure 1, the mooring system for the vessel V includes turrets A, B, C, and a mooring means M (chains 42, reels 36, 40, chain locker

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38, etc.). Referring to col. 5, lines 31-40 and Figure 1, Key et al. discloses a middle turret B extending through the well W having a central riser pipe 54 surrounded by a plurality of risers 49 also extending through the turret B.

Regarding Nandakumar et al., referring to col. 2, lines 33-41, Figure 1, and the abstract, Nandakumar et al. describes an offshore terminal mooring buoy 12 designed to dive downwardly through large swells during bad weather, the buoy 12 anchored to the seabed 13 by means of a plurality of anchored chains 14 connected to a rotatable connection 22. Referring to col. 2, lines 48-52, a flexible riser 26 passes through the center of the buoy 12 and is connected between a flexible swivel 28 on top of the buoy 12 and a pipeline end manifold 30 disposed on the seabed 13. Referring to col. 3, lines 29-33, Nandakumar et al. further describes a buoy 12 having sidewalls 35, 36, 40, formed from six individual flat plate sections to form a hexagonal shape.

Regarding Allen et al., referring to col. 2, lines 11-18, Allen et al. describes a spar 10 characterized by an elongated hull 14 ballasted at its base by a counterweight 18 separated by a middle counterweight spacing structure 20. Referring to col. 2, lines 27-38, the hull 14 has an upper buoyancy section 14A and a lower buoyancy section 14B separated by a buoyant section spacing structure 28. Referring to Figures 2 and 3 and col. 3, lines 25-30, production risers 34A extend through a moonpool 38 to connect wells or manifolds on the seafloor to surface completions at deck 12. Referring to Figure 1, mooring lines 19 are connected to a belowwaterline portion of the hull 14 to moor the spar 10.

To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Notably, neither Key et al., Nandakumar et al., nor Allen et al. teach or suggest (1) a tendon access shaft extending through the hull of an offshore platform, (2) the bottom of the hull sealed about the tendon access shaft to prevent loss of buoyancy for the hull interior, or (3) a tendon extending into the tendon access shaft to moor the hull, as featured in independent claims 4 and 18 (as amended). Nor does either reference disclose a hull constructed (cut) from a tanker, as featured in new independent claim 21.

Each of the references described a mooring consisting of chains or mooring lines, and not the use of a tendon, which extends substantially in a straight line downward and is held under tension. Thus, there is also no teaching or suggestion for a tendon access shaft extending In re Patent Application of: Donald H. Gehring

through the hull of either of the referenced devices nor is there a teaching or suggestion for the hull to be sealed to such tendon access shaft. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection regarding independent claims 4 and 18 (as amended). Further, as claims 5-6, and 11, are dependent upon claims 4, shown to be allowable, and as claims 19-20 are dependent upon claim 18, shown to be allowable, they should also be in allowable form. Further, the dependent claims are independently novel.

Regarding claims 5 and 19 (as amended), neither of the cited references teach or suggest (1) a plurality of riser guide sleeves positioned between riser slot apertures in the top and bottom of a hull, or (2) the bottom of the hull sealed about the riser guide sleeves to prevent loss of buoyancy for the hull interior. In Key et al., the risers 49 and 54 are passed through turret B which is not sealed to the vessel body, but is instead rotatably positioned through well W. In Nandakumar et al., the flexible riser 26 is a single flexible riser which passes through the center of the buoy 12. The reference does not describe the methodology of how this is accomplished. In Allen et al., the risers 34A extend through a single moonpool 38.

Regarding claims 6 and 20 (as amended), the counterweight 18 disclosed in Allen et al. (see Fig. 6) is shown to have a single opening to pass risers 34A, and thus does not teach or suggest a counterweight having plurality of riser conductor slots. Further, the counterweight is *not* connected to a lower portion of a tendon access shaft, as featured in the claims.

Regarding claim 11 (as amended), the offshore platform described in the claim features a plurality of water tight compartments connected to the bottom of the buoyant hull. Neither of the cited references teach or suggest a plurality of such featured compartments.

Regarding new claim 21, neither reference teaches or suggests cutting a tank section from a tanker to define a hull.

Regarding new claim 21 and 26, neither reference teaches or suggests production equipment positioned within a hull interior to enhance stability.

Regarding new claim 22, neither reference teaches or suggests installing in a hull a tendon access shaft having a tendon access shaft extension extending below a bottom of the hull, or connecting a tendon to a tendon access shaft extension to provide mooring for the hull.

Regarding new claim 23, neither reference teaches or suggests attaching to a lower end of the tendon access shaft a counterweight . . . so that the offshore platform floats substantially

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vertically without the need of the additional subsea mooring support.

Regarding new claim 24, neither reference teaches or suggests attaching to a tendon access shaft a tendon connector having a connection aperture for connecting a tendon to moor a hull.

Regarding new claim 25, neither reference teaches or suggests *removing* corners of an [existing] hull and adding side panels at the corners to *form* an at least eight-sided hull.

Regarding new claim 27, neither reference teaches or suggests cutting and removing one or more intact midsection oil cargo tanks from an existing tanker to form a buoyant hull, or adding additional watertight bulkheads to the buoyant hull to increase a number of watertight compartments.

## **CONCLUSION**

In view of the amendments and remarks set forth herein, Applicant respectfully submits that the application is in condition for allowance. Accordingly, the issuance of a Notice of Allowance in due course is respectfully requested.

Respectfully submitted,

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Date: <u>Dec 3, 200</u> 4

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